PRODUCT DESCRIPTION

The AUTO-TEMP 379 electronically temperature controlled soldering station has been designed to meet the present and future soldering needs of the electronic production industry, hobbyist and students.

The AUTO-TEMP 379 incorporates electronic circuitry which enables the user to adjust the temperature from 250°C (500°F) through 450°C (850°F) without changing the tip. The temperature is maintained to within ±5°C (9°F) of its idling temperature through the use of its PTC characteristic.

The electronic "ZERO VOLTAGE" switching protects voltage and current sensitive components, such as "CMOS" devices, against transient voltage spikes that can be caused by switching the power or heater on/off or other environmental conditions.

The highly insulated ceramic heating element with heater insulation exceeds 100 Mhoms. The specifically design heater brings the temperature up to approximately 565-650°C (1050-1200°F) at full setting in about one minute. This results in very fast heat-up, instant recovery and superior heat transmission.

The ergonomic and slender soldering iron design with a comfortable rubber grip that prevents operator fatigue. The soldering iron is attached to the base unit using a non-burning silicone rubber cord. All housings are molded of high impact, heat resistant polycarbonate.

The tip is grounded through the power unit to ensure leakage of less than 0.4 millivolts, and a wide selection of long-lasting, iron clad, nickel/chrome plated and pre-tinned tips are available to meet all your soldering needs.

OPERATING INSTRUCTIONS

1. Insert the iron holder into the slot at the top of the housing.
2. Plug in the power cord (make sure voltages match) and slide the switch to the "ON" position then LED lamp will be "ON".
3. Rotate the temperature control knob to the desired temperature.
   Note: to extend the life of the tip and heater, turn the control knob to the lowest setting and pre-heat for 2-3 minutes.
4. The L.E.D. lamp will be extinguished when the temperature has reached the desired setting. The L.E.D. lamp will come on when ever the iron is being reheated to the desired temperature.
5. Always keep the sponge wet.
6. To extend the life of the heater and tip, turn the control knob to the lowest setting when temporarily not in use.

Caution: Ensure that the working voltage matches your power supply before plugging in the station.

WORKING TEMPERATURE

A low iron temperature will slow the rate of flow of the solder. A high temperature will burn the flux in the solder, which in turn will emit a heavy white smoke resulting in a dry joint, or damage to the P.C.B. When the tip working temperature is set to the correct temperature parameters suited to the particular solder being used, a good joint is assured.

The most common solder alloy used in the electronic industry is 60% tin, 40% lead (60/40). The tip working temperature of the solder is detaild below and can vary from manufacturer to manufacturer.

Melting point	215°C (419°F)
Normal operation	320°C (608°F)
Production line operation	380°C (716°F)
Desoldering operation for smaller joint	320°C (608°F)
Desoldering operation for larger joint	400°C (752°F)

The temperature above 410°C (770°F) is not recommended for normal soldering functions, but for short periods when excessive heat is necessary.

NEW TIP

Used according to the following procedures if a new tip were installed at any time, it will give the tip much longer life.

1. Set temperature to minimum, then move the main power switch to the "ON" position.
2. Flood the tinned surfaces with resin-core solder when temperature reaches 250°C (392°F)
3. Set at desired temperature after warming for few minutes.
4. The iron will be ready for use once it reaches the preset temperature.

IMPORTANT – Remove and clean the tip daily. If a new tip is installed, remove any loose build up in the barrel assembly, otherwise tip may fuse to the heating element or retaining barrel.

COMMON CAUSES OF TIP UNWETTING

1. Tip temperature higher than 410°C (770°F)
2. Working surfaces not well tinned during idling periods.
3. Lack of flux in soldering, wicking, repairing, and touch-up, etc. operation.
4. Wiping tip on high sulphur content sponge, dirty or dry sponge and/or rags.
5. Touching with organic, such as plastic resins, silicone grease and other chemicals.
6. Impurities in solder and low tin content.

CARE OF TIPS

IMPORTANT –
Remove the tip and clean after every usage or at least once a week, and remove any loose build up in the barrel.

The tips supplied are iron clad pure copper and if used properly will give a long life.

1. Always keep tips tinned before returning to the holder, switching off or storing for any period of time. Wipe only before using.
2. Don't keep iron set at high temperature for long periods of time as this will break down the surfaces of the tip.
3. Don't give any excessive pressure on a tip or rub a tip on a joint. It does not improve the heat transfer but only damages the tip.
4. Never clean the tip with abrasive materials or a file.
5. Don't use a flux containing chloride or acid, use only rosin or activated resin fluxes.
6. If any oxide does form, it can be cleaned by lightly rubbing with a "600-800 grit" emery cloth, isopropyl alcohol or equivalent, then wrap rosin-core solder around the newly exposed surfaces and heat, flood the tinned areas with rosin-core solder after wrapped rosin-core solder melted.

MAINTENANCE

TIP REPLACEMENT AND DRESSING

Tip can be changed or replaced simply by unscrewing the knurled nut barrel assembly.

The station must be switched off and allowed to cool before this operation as damage may result if the system is left on without the tip inserted.

After removing the tip, blow out any oxide dust that may have formed in the tip retaining area of the barrel. Be careful to avoid getting dust in your eyes. Replace the tip and screw back the knurled nut barrel assembly using only firm hand pressure to tighten. Pliers should only be used to tighten the nut to avoid burning your fingers, but care should be taken not to overtighten as this would damage the element.

GENERAL CLEANING

The outer cover of the iron and station may be cleaned with a damp cloth using small amounts of liquid detergent. Never submerse the unit in liquid or allow any liquid to enter the case of the station. Never use any solvent to clean the case.

SERVICE

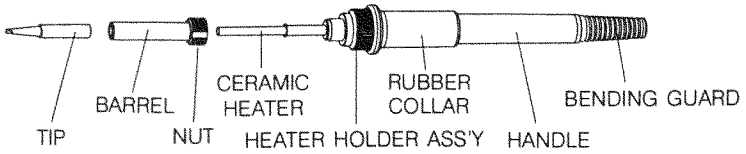
If the iron or station should become faulty or, for some reason not operate normally, the system should be returned to the service department of your authorized dealer or agent.

WARNING: Keep out of the reach of children.

WARNING: Do not inhale solder fumes.

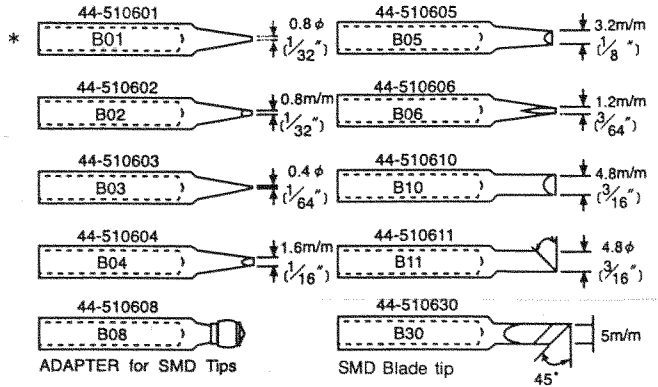
WARNING: Keep tip and heating element away from the body and clothes while in operation.

SOLDERING IRON ASSEMBLY 106U (FOR 100-120Vac)
106V (FOR 220-240Vac)



REPLACMENT TIPS:

INTERCHANGEABLE TIPS



*Denotes Standard tip

REPLACEMENT PARTS:

Part No.	Description
77-110505	Barrel
42-030102	Nut
79A230025P	Ceramic Heater 230V
79A110025P	Ceramic Heater 110V
26A140172	Heater holder fixture
50-210531	Spiral spring ground wire
66A213098	Heater PCB with cable fixing clip
52-010035	Silicone rubber collar
26-060173	Plastic handle
52-020040	Bending guard
34-031091	3-wire silicone cable
78-465715	Sponge
66A213085V	Main P.C.B. assembly for 220-240V
66A213085U	Main P.C.B. assembly for 100-120V